

**REMARKS**

Applicant hereby responds to the Office Action of June 1, 2005, in the above-referenced patent application. Prior to this Reply, Claims 1-23 were pending in the patent application. Through this Reply, new Claim 24 has been added. Accordingly, Claims 1-24 are now pending in the above-referenced patent application. Claims 1-6, 9-10 and 23 were rejected under 35 USC 102(b) as being anticipated by USPN 5,432,558 to Kim ("Kim"). Claims 7-8 and 11-22 were rejected under 35 USC 103(a) as being unpatentable over Kim.

**Rejection of Claims under 35 USC 102(b)**

Rejection of Claims 1-6, 9-10 and 23 USC 102(b) as being anticipated by Kim is respectfully traversed for at least the following reasons.

Kim is non-analogous art. Kim is directed to an *analog* video system (NTSC), whereas the claimed invention herein is directed to a *digital* video service network. As the Examiner has also recognized (in the section of the Office Action rejecting Claims 7-8 and 11-22), Kim does not disclose or suggest use of MPEG-2 which is an encoded *digital* television signal. Indeed, Kim resorts to use of vertical blanking area (VBI) for transmitting channel and time information, rather than encoding such information in a digital signal. The VBI is a portion of an analog television signal that can carry information other than video or audio. The interval in sending a video signal is required for the time it takes the electron gun in a television monitor's cathode ray

tube CRT to move back up to the top of the tube. Kim is specific about use of VBI, and does not utilize a digital television signal for transmitting video images or other information such as channel or time. Instead, Kim utilizes analog signals for transmitting video images, and in the VBI portion of the analog signal, Kim inserts the time and channel information. Therefore, Kim should be removed as a reference.

Further, as per **Claim 1**, Kim does not disclose all of the claimed limitations. In col. 4, lines 4-64 (relied on by the Examiner), Kim discusses a device for performing a specific function at a receiving side based on an analog video signal in which a code is inserted is transmitted. A transmitter transmits an analog video signal in which a given code relating to time correction or a program reservation at a receiving is inserted. The receiver detects the code and then transmits the detected code to a circuit for performing the specific function by inputting a one touch key.

Kim does not disclose means for receiving a *digital* television signal from a transmission channel, the digital television signal including a Preview Program and Broadcasting Schedule Information, the Preview Program and the Broadcasting Schedule Information relating to a Main Program, as required by Claim 1. As discussed, Kim is directed to an analog system. Further, Kim does not disclose means for decoding the digital television signal, as required by Claim 1. As discussed, Kim is directed to an analog system. In addition, Kim does not disclose any means for decoding a digital television signal. Further, Kim does not disclose means for providing an output signal reflective of the Preview Program for display, as required by Claim 1. Kim is

directed to an analog system, and does not disclose signal outputting a digital Preview Program signal for display. Further, Kim does not disclose means for downloading digital Broadcasting Schedule Information while the Preview Program is being decoded and displayed, as required by Claim 1. In addition, there is no downloading of a digital signal taught or suggested by Kim. For at least these reasons, it is respectfully submitted that rejection of Claim 1, and all claims dependent therefrom, should be withdrawn.

As per **Claim 2**, Kim col. 6, lines 25-27 (relied on by the Examiner), does not disclose means demodulating a received digital television signal and extracting bit streams describing the digital television signal, as required by Claim 2. Kim does not disclose demodulating a digital signal. Kim does not disclose extracting bit streams that describe a digital television signal. The concept of bit streams is not mentioned in Kim. It is respectfully submitted that the Examiner interprets the modulator in Kim to anticipate the claimed limitations without any disclosure in Kim that the modulator therein performs the claimed limitations. For at least these reasons, it is respectfully submitted that rejection of Claim 2 should be withdrawn.

As per **Claim 3**, Kim does not disclose multiplexing or demultiplexing a Preview Program and Broadcasting Schedule Information in a digital television signal, as claimed. In col. 5, lines 3-10 and 57-58 (relied on by the Examiner) all Kim discloses is using a circuit to detect the code in the received analog video signal. Kim does not even mention demultiplexing. Further, as discussed, in Kim VBI applies to analog signals. For at least these reasons, it is

respectfully submitted that rejection of Claim 3 should be withdrawn.

As per **Claim 4**, Kim does not specify multiplexing or demultiplexing a Preview Program and Broadcasting Schedule Information in a digital television signal. In col. 4, lines 7-14 and col. 6, lines 25-32 (relied on by the Examiner), Kim only discloses a decoder to detect the code in the received analog video signal. And, in Kim VBI applies to analog signals. For at least these reasons, it is respectfully submitted that rejection of Claim 4 should be withdrawn.

As per **Claim 5**, Kim does not disclose a System and Schedule Manager for controlling the means for decoding, as claimed. The decoder 22 in Kim detects codes in the analog signal when such the analog signals contain them. In col. 4, lines 51-54, relied on by the Examiner; Kim does not disclose System and Schedule Manager for controlling the decoder 22. There is no such feature in Kim. Further, Kim does not disclose a System Manager for directing a data stream flow of data from the digital television signal, as claimed. As discussed, Kim does not disclose data streams. In col. 4, lines 51-54 (relied on by the Examiner), Kim discusses sending program reservation information to a reservation circuit. There is no data flow option in Kim (i.e., program reservation information cannot be directed to any other place but the reservation circuit). For at least these reasons, it is respectfully submitted that rejection of Claim 5 should be withdrawn.

As per **Claim 6**, Kim does not disclose a Digital Storage Device for receiving, storing and replaying data reflective of the Main Program, the Main Program being related to the Preview Program and the Main Program being described by the Broadcasting Schedule Information, as claimed. Further, in col. 4, lines 15-20 and 56-64 (relied on by the Examiner), Kim does not disclose a digital storage device as there is no digital signal in Kim to store in a digital storage device. For at least these reasons, it is respectfully submitted that rejection of Claim 6 should be withdrawn.

As per **Claim 10**, Kim does not disclose a Schedule Queue, the Schedule Queue receiving at least the start time of the Broadcasting Schedule Information, the start time being compared with a system clock to determine when to have control signals sent to instruct the receiver to process the Main Program, as claimed. Further, in col. 5, lines 41-46 (relied on by the Examiner), or elsewhere, Kim does not mention a queue. For at least these reasons, it is respectfully submitted that rejection of Claim 10 should be withdrawn.

#### **Rejections under 35 USC 103(a)**

Rejection of Claims 7-8 and 11-22 under 35 USC 103(a) as being unpatentable over Kim is respectfully traversed because as discussed above not only Kim does not disclose all of the claimed limitations, but as discussed below Kim does suggest or provide a motivation to be changed as interpreted by the Examiner.

At the outset, Applicant notes that in rejecting the Claims under 35 USC 103(a), the Examiner has relied on Official Notice without more, to interpret the limitations as well known and reject every claimed limitation that Kim does not disclose. If the claimed limitations are so well known, why has not the Examiner provided a reference in the prior art that discussed such limitations and also point to motivation or suggestion in the reference to combine them as the Examiner suggests?

As per **Claim 7**, as discussed above, Kim does not disclose all of the limitations of base Claim 1. Further, as the Examiner also states, Kim does not disclose Application decoders for decoding audio and video coded bit streams of the Preview Program or the Main Program, the Audio/Video decoders sending an Audio output signal for transducing into sound and a decoded video signal for processing and display, as claimed. However, the Examiner takes Official Notice of such limitations without any support or reference.

The Examiner recognizes the advantages of the presently claimed invention by trying to make modifications in Kim. It is well settled that in order for a modification or combination of the prior art to be valid, the prior art itself must suggest the modification or combination, "...invention cannot be found obvious unless there was some explicit teaching or suggestion in the art to motivate one of ordinary skill to combine elements so as to create the same invention." *Winner International Royalty Corp. v. Wang*, No. 96-2107, 48 USPQ.2d 1139, 1140 (D.C.D.C. 1998) (emphasis added). "The prior art must provide one of ordinary skill in the art the

motivation to make the proposed molecular modifications needed to arrive at the claimed compound.” *In re Jones*, 958 F.2d 347, 21 USPQ.2d 1941, 1944 (Fed. Cir. 1992) (emphasis added). Kim does not suggest the motivation to modify it as proposed by the Examiner. Kim is individually complete and functionally independent for its limited specific purpose and there would be no reason to make the modification proposed by the Examiner. Therefore, because Kim, does not suggest the modifications proposed by the Examiner, the modifications are improper.

There is no need in Kim for Application decoders for decoding audio and video coded bit streams of the Preview Program or the Main Program, because there are audio and video coded bit streams in Kim. Indeed, as discussed above, there are no bit stream transmissions to the receiver in Kim at all. Further, as Kim is directed to analog signals, there is no need in Kim for Application decoders for decoding digital and video coded bit streams of the Preview Program or the Main Program. In addition, on the one hand the Examiner admits that Kim does not disclose the claimed limitations, but on the other hand the Examiner states that use of decoders is needed in any time of A/V signal in order to arrive at the desired user-viewable material. If such decoders are needed, then why does not Kim disclose or used them?

Even if the modification was legally justified, it still would not render Applicants’ claimed invention obvious. The Examiner admits that Kim does not teach all limitations in Claim 7. Therefore, the Examiner attempts to modify Kim in order to teach Applicants’ claimed

invention. However, as discussed, the Examiner has not provided a single reference where such limitations are disclosed. Accordingly, the effort required to modify Kim would require a substantial undertaking and numerous elements which would not be obvious.

Further, Applicant respectfully submits that the Examiner is improperly using “hindsight” and the teachings of Applicant’s own claimed invention in order to modify Kim to render Applicants’ claims obvious. The Examiner admits that Kim fails to teach all of the limitations of Applicant’s claimed invention. However, the Examiner improperly attempts to modify Kim without any support in a reference, in an attempt to achieve Applicant’s claimed invention.

If Applicant’s claimed limitations were in fact obvious, those skilled in the art would have modified the teachings of Kim as the Examiner suggested. The fact that Kim has been modified, to implement Applicant’s claimed invention, despite its great advantages, indicates that Applicant’s claimed invention is neither obvious nor taught by the prior art. Therefore, for at least the above reasons, Claim 7 is patentably distinct from Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 7, and all dependent claims therefrom, should be withdrawn.

As per **Claim 8**, Kim does not disclose a means for generating an icon to overlay the video output of the decoded video signal during display, as claimed. Kim simply uses a lamp. No graphical user interface is disclosed or suggested in Kim. There is no digital system in Kim.



Further, there is no mention in Kim of a way in which an icon can even overlay a video output. Nor has the Examiner provided a reference where such limitations are disclosed. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 8 should be withdrawn.

As per **Claim 11**, Kim does not disclose a means for notifying a viewer that the start time is approaching and requesting an instruction as to whether the viewer desires that the Main Program be recorded or displayed. Nor is there any need for such a feature in Kim since Kim is only directed to recording a program at a set time, and does not even suggest an option, to record or to display, a program at its start time. Kim provides no motivation or suggestion for the modification suggested by the Examiner. This is further clear because as discussed above, Kim does not disclose an option for directing data flow (e.g., direct data flow to a display, to a storage device, etc.). Again, the Examiner has taken a conclusory Official Notice instead of citing a reference that discloses such limitations and suggests a motivation for combination with Kim. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 11 should be withdrawn.

As per **Claim 12**, Kim does not disclose that the means for notifying provides an instruction to record if the viewer does not input any instruction within a predetermined time. This feature is not even suggested by Kim, and there is no motivation in Kim for modifying Kim as the Examiner suggests. There is no user interface intelligence built into Kim's system. When a lamp comes on, the user either presses a key on a remote to select later recording of a program, or nothing happens. The Examiner attempts to add such limitations to Kim without explaining why there is such a claimed limitation, which the Examiner consider so well known to be deserving of Official Notice, is not even suggested in Kim. Again, the Examiner has taken a conclusory Official Notice instead of citing a reference that discloses such limitations and suggests a motivation for combination with Kim. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 12 should be withdrawn.

As per **Claim 13**, Kim does not disclose a method for providing MPEG-2 digital television signals by coding the Preview Program into an MPEG-2 signal, embedding the Broadcasting Schedule Information into the MPEG-2 signal such that the Broadcasting Schedule Information will be received by a digital television receiver while the Preview Program is being decoded by the digital television receiver, as required by Claim 13. Indeed, Kim does not even disclose a digital video service network, let alone suggesting a coding and transmission method such as MPEG-2. Kim does not provide a digital television signal to be received by a digital

television receiver. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 13 should be withdrawn.

As per **Claim 14**, Kim does not disclose coding a notice into the MPEG-2 signal, the notice being applied by the receiver in such a manner to inform the viewer that they are receiving an MPEG-2 signal which includes both the Preview Program and the Broadcasting Schedule Information, as required by Claim 14. Indeed, Kim does not even disclose a digital video service network, let alone suggesting a coding and transmission method such as MPEG-2. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 14 should be withdrawn.

As per **Claim 15**, Kim does not disclose that the notice is an icon simultaneously displayed with the Preview Program. Kim simply uses a lamp. No graphical user interface is disclosed or suggested in Kim. There is no digital system in Kim. Further, there is no mention in Kim of a way in which an icon can even overlay a video output. Nor has the Examiner provided a reference where such limitations are disclosed. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least

these reasons rejection of Claim 15 should be withdrawn.

As per **Claim 16**, Kim does not disclose an MPEG-2 digital television signal, comprising a Preview Program coded within the MPEG-2 signal, Broadcasting Schedule Information embedded within the MPEG-2 signal, the Broadcasting Schedule Information being embedded into the MPEG-2 signal such that the Broadcasting Schedule Information will be received by a digital television receiver while the Preview Program is being decoded by the digital television receiver, as required by Claim 16. Kim does not even disclose a digital video service network, let alone suggesting a coding and transmission method such as MPEG-2. Kim does not provide a digital television signal to be received by a digital television receiver. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 16 should be withdrawn.

As per **Claim 17**, Kim does not disclose the MPEG-2 Signal further comprising a notice coded into the MPEG-2 signal, the notice being applied by the receiver in such a manner to inform the viewer that they are receiving an MPEG-2 signal which includes both the Preview Program and the Broadcasting Schedule Information, as required by Claim 17. Kim does not even disclose a digital video service network, let alone suggesting a coding and transmission method such as MPEG-2. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in

Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 17 should be withdrawn.

As per **Claim 18**, Kim does not disclose that the notice is an icon simultaneously displayed with the Preview Program. Kim simply uses a lamp. No graphical user interface is disclosed or suggested in Kim. There is no digital system in Kim. Further, there is no mention in Kim of a way in which an icon can even overlay a video output. Nor has the Examiner provided a reference where such limitations are disclosed. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 18 should be withdrawn.

As per **Claim 19**, Kim does not disclose a method of displaying an MPEG-2 digital television signal including a Preview Program and Broadcasting Schedule Information related to a Main Program, by displaying a program coded within the MPEG-2 signal, the Program relating to an related item of choice for the viewer, receiving ordering information embedded within the MPEG-2 signal simultaneously with the display of the program, the ordering information relating to the item of choice, and the ordering information allowing a viewer to select the item while the program is being displayed, as required by Claim 19. Kim does not even disclose a digital video service network, let alone suggesting a coding and transmission method such as MPEG-2. There is no digital system in Kim. Further, there is no mention in Kim of a way in which an icon can

even overlay a video output. Nor has the Examiner provided a reference where such limitations are disclosed. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 19 should be withdrawn.

As per **Claim 20**, Kim does not disclose providing a notice to a viewer, the notice being applied to the viewer in such a manner to inform the viewer that they are receiving an MPEG-2 signal which includes both the program and the ordering information, as required by Claim 20. Indeed, Kim does not even disclose a digital video service network, let alone suggesting a coding and transmission method such as MPEG-2. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 20 should be withdrawn.

As per **Claim 21**, Kim does not disclose that the notice is an icon simultaneously displayed with the program. Kim simply uses a lamp. No graphical user interface is disclosed or suggested in Kim. There is no digital system in Kim. Further, there is no mention in Kim of a way in which an icon can even overlay a video output. Nor has the Examiner provided a reference where such limitations are disclosed. Kim does not provide any motivation for the modification suggested by the Examiner, and indeed the Examiner has not shown where such

motivation is disclosed in Kim. Accordingly, it is respectfully submitted that for at least these reasons rejection of Claim 21 should be withdrawn.

**New Claim**

New Claim 24 is patentably distinct from the cited references for at least the reasons provided above. No new matter has been added.

**CONCLUSION**

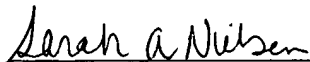
If necessary, the Commissioner is hereby authorized to charge payment or credit any overpayment to Deposit Account No. 01-1960 for any additional fees required in connection with this filing. A duplicate copy of this page is enclosed for this purpose.

For these, and other, reasons, Applicants believe that the claims are in condition for allowance. Reconsideration, re-examination, and allowance of all claims are respectfully requested.

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